

StanesbySr1-O-Waterhouse-Wg1-WOB-DNM

	A	B	C	D	E	F	G	H	I
1	I. Bocal		Original bocal???: NO						
2	dia reed end		inside diameter of reed end of bocal						
3	bocal string length (0, 1)		length of bocal inserted into receiver						
4	metal bocal length top (0, 1)		meas. along top of bocal						
5	metal bocal length bot (0, 1)		meas. along bottom of bocal						
6	dia wj end		inside diameter of bocal						
7									
8	bocal logic	2	if bocal logic = 0 => bocal is choke; if bocal logic = 1 =>choke in wing joint calc; if bocal logic = 2 => no bocal						
9			Put here choke vs receiver details???						
10									
11									
12			Run again with coke length at 90 mm line 15; info from M. Dart						
13	II. Wing Joint Lengths; Wing by Stanesby Jr		bocal receiver: cannot meas. Stanesby Sr. wing at top, rotted out; Choke and receiver length from Stanesby jr.						
14	choke bore dia.	9.6	logic 1; bore diameter of choke; logic 0; either diameter bocal bottom or beginning of bore at bottom or receiver						
15	receiver length (1, 0) (formally choke leng	44	logic 1; length of choke from top of wing joint; logic 0; length of receiver (same as string length)						
16	wing joint length	542	total wing joint length, including tenon and socket						
17	tenon length	58.2	tenon length						
18									
19	wj f2	235	dist top of wing to where tone hole enters bore [not at the center of the tone hole]						
20	wj e	282	E tone hole has a liner						
21	wj d	332							
22									
23	Bore dia. Bottom of wing joint	18.5	Need to Average, usually oval; No, but there is a brass liner in the tenon bore						
24	Bore dia. top of boot joint small side	16.7							
25	Bore dia. top of boot joint large side	26.3							
26									
27	III. Boot Lengths		No Two whole design; normal rounded cork						
28	bj logic	1	logic=> if bj logic = 0 => plug removed; if bj logic = 1 => plug cannot be removed						
29	bj c	95	dist from top of boot to where topmost tone hole enter bore [not at center of tone hole]						
30	bj b	158							
31	bj a	201							
32									
33	bjstotal [Needed for both boot logics]	441	total length of boot, include socket, along the small bore side, meas. With boot cap removed						
34	bjltotal [Needed for both boot logics]	441	total length of boot, include socket, along large bore side						
35	plug small [Need for logic 0 only]	0	plug thickness, large bore side						
36	plug large [Need for logic 0 only]	0	plug thickness, small bore side						
37									
38	boots [Needed for both boot logics]	388	hook length along s bore => bjs-septum length = boot - septum <= calc the septum						
39	bootl [Needed for both boot logics]	388	hook length along l bore => bj-l-septum length = boot - septum <= calc the septum						
40									
41	boots bottom [Needed for both boot logics]	36.5	use hook, dist of bore [dist on stick plus 7mm, diff between hook and bot of stick]						
42	bootl bottom [Needed for both boot logics]	36.5	use hook, dist of bore [same as boots bot except tenon depth will be different]; 29.5 + 7						
43									
44	extreme bore [Needed for logic 1 only]	41.7	Outside dia of plug [measured] = small bore dia + large bore dia + the septum width						
45									
46	septum length exp [Need for logic 0 only]	0	dist. from very bottom of boot to septum [point between the large and small bore]						
47	septum length calc - do not imput value	53	dist. From very bottom of boot to spetum [bjl - bootl]						do not imput value
48	septum length - do not imput value	53	if bj logic = 0 => septum = septum exp; if bj logic = 1 => septum = sep						do not imput value
49									
50	sbore dia sep* [Needed for both boot logic]	19.4	septum small bore dia [assume = lbore dia sep]						
51	lbore dia sep* [Needed for both boot logics]	21	septum large bore dia [assume = sbore dia sep] [mesure if cork can be removed; for Logic 0]						
52	sep width exp [Need for logic 0 only]	0	septum width; direct measurement if remove plug						
53	sep width calc - do not imput value	1.3	septum width; calc. => extreme bore - sbore - lbore						do not imput value
54	sep width - do not imput value	1.3	if bj logic = 0 => sep width = sep width exp; if bj logic = 1 => sep width						do not imput value
55									
56	bj g	359	dist from top of boot (socket) to where G hole enters bore [not at cent of tone hole]						
57	bj f1	152	dist from top of boot (socket) to where F1 hole enters bore [not at cent of tone hole]						
58									
59			Notes on turn-around: cork is made of ??? could add friction, ??mm of curve						
60									
61									
62									
63	IV. Tone Hole Diameters								
64	f2	5.5							
65	e	5.2							
66	d	5.7							
67									
68	c	7.9							
69	b	7							
70	a	6							
71	g	8.5							
72	f1	9.5							
73									
74	e1	10.6	e1 tone hole dia, on long joint [need to average NS and EW dias, NS usually greater]						
75	d1	9.1	d1 tone hole dia, on long joint [need to average NS and EW dias, NS usually greater]						
76	c1	11.2	c1 tone hole dia, on long joint [need to average NS and EW dias, NS usually greater]						
77									
78									
79									
80									
81									
82	V. Tone Hole Depths								
83	f2	23.3							
84	e	23.5							
85	d	28.4							
86									
87	c	24.3							
88	b	27.2							
89	a	26.7							
90	g	12.4	meas along bot tone hole wall [north wall, toward reed,tone hole usually at angle]						
91	f1	21.5	meas along east side tone hole wall [north wall, toward reed,t hole usually at angle]						
92									
93	e1	9.9	e1 tone hole depth; meas east/west with deapth gauge [at center, or shortest dist]						
94	d1	10	d1 tone hole depth; meas east/west with deapth gauge [at center, or shortest dist]						

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95	c1	9.5	c1 tone hole depth; meas east/west with deapth gauge [at center, or shortest dist]						
96									
97									
98									
99									
100									
101	VI. Long Joint		There is a table along long joint; YES there is a table along long joint						
102	lg length	605	total length of long joint; yes 600 mm						
103	lg tenon bot	60	length bottom tenon on long joint [tenon going into boot joint] yes 60mm						
104	lj bot bore	25.4	long joint bottom tenon bore diameter [tenon going into boot joint] Average; Tenon has been repaired, a brass liner in tenon						
105	lj top bore	32.7	long joint top tenon bore diameter [tenon going into bell]						
106	lg tenon top	45.2	length top tenon on long joint [tenon going into bell]						
107	e1 distance	66	dist long joint tenon to e1 [from bot of tenon to where tone hole enters bore]						
108	d1 distance	256	dist long joint tenon to d1 [from bot of tenon to where tone hole enters bore]						
109	c1 distance	469	dist long joint tenon to c1 [from bot of tenon to where tone hole enters bore]						
110									
111									
112									
113									
114									
115	VII. Bore diameters at Tone Holes								
116	f2	12.8							
117	e	13.3							
118	d	13.9							
119									
120	c	17.3							
121	b	17.6							
122	a	17.9							
123	g	21.6							
124	f1	23.4							
125									
126	e1	24.5	e1 tone hole bore diameter on long joint						
127	d1	27.4	d1 tone hole bore diameter on long joint						
128	c1	30.5	c1 tone hole bore diameter on long joint						
129									
130									
131									
132									
133									
134	VIII. Bell		There is no tone hole in the bell; omm, 0 mm from bottom, include bell socket						
135	bell logic	1	If bell logic = 0 => normal conical bore; if bell logic = 1 => inverted conical bore; if bell logic = 2 => bell expansion						
136	bell length (0, 1, 2)	319	total length of bell [lines 141 + 144 = line 136]						
137	bell bot bore (0, 1, 2)	32.7	dia bore at the bottom of bell [end with socket]						
138	bell top bore (0, 1, 0, 2)	28.1	dia bore at the top of bell [where low Bb exits] OOR 28.6 x 27.7						
139	bell center bore (only for logic 2)		dia bore at max center of expansion						
140	bell wall (only for logic 2)		bell wall thickness, Just for David						
141	bell bot bore expansion (only for logic 2)		dist of bottom to maxium of expansion [including bell socket length,if bell logic=0 =>100]						
142	Outside diameter of wood at expansion		Just for David						
143	bell tenon (0, 1, 0, 2)	45	bell socket length						
144	bell expansion length (only for logic 2)		distance of maxium expansion to top of bell [where Bb exits]						
145	bellfg	42	Usually about 10mm more than line 138						
146									
147									
148	IX. PITCH								
149	pitch	392	input the historical pitch of the bassoon, must input value, best guess						
150	freq_init	380	Initial frequency range variable						
151	Delta frequency	2	frequency increment parameter						
152	Number of frequencies	60	number of frequencies to scan for min chi sq						
153	Frequency adjust	1.05	frequency adjustment parameter						
154	X. Title								
155	title		Bassoon Calculation: StanesbySr1-O-Waterhouse-Wg1-WOB-DNM						
156									
157			Notes on long joint bore: very out of round in places, yes						
158			Notes on boot joint bore: small side very out of round and cyn.						
159	XI. Bore Diameter Locations		Notes on wing joint bore: ????						
160		20	Number of diameters						
161			Initial bore diameter [do not include in line 160 counting]						
162		0	dist1; measured from the bottom of the wing joint- 10mm				1		
163		414	dist2; measured from the bottom of the wing joint- 11mm				1		
164		342	dist3; measured from the bottom of the wing joint- 12mm				1		
165		280	dist4; measured from the bottom of the wing joint- 13mm				1		
166		187	dist5; measured from the bottom of the wing joint- 14mm				1		
167		143	dist6; measured from the bottom of the wing joint- 15mm; OOR	Bottom win	18.5		1		
168		112	dist7; measured from the bottom of the wing joint- 16mm	top boot sm	16.7		1		
169		90	dist8; measured from the top of the bootjoint - small bore side- 17mm	top boot lar	26.3		2		
170		250	dist9; measured from the top of the bootjoint - small bore side- 18mm				2		
171		0	dist10; measured from the top of the bootjoint -small bore side- 19mm	sbore dia se	19.4		2		
172		0	dist11; measured from the top of the bootjoint - large bore side- 20mm	lbore dia se	21		3		
173		388	dist12; measured from the top of the bootjoint - large bore side- 21mm	Hook Lengt	388		3		
174		325	dist13; measured from the top of the bootjoint - large bore side- 22mm; very OOR				3		
175		195	dist14; measured from the top of the bootjoint - large bore side- 23mm				3		
176		119	dist15; measured from the top of the bootjoint - large bore side- 24mm	lj bot bore	25.4		3		
177		505	dist16; measured from the top of the long joint- 25mm				4		
178		412	dist17; measured from the top of the long joint- 26mm				4		
179		390	dist18; measured from the top of the long joint- 27mm				4		
180		268	dist19; measured from the top of the long joint- 28mm				4		
181		228	dist20; measured from the top of the long joint- 29mm				4		
182		210	dist21; measured from the top of the long joint- 30mm				4		
183		87	dist22; measured from the top of the long joint- 31mm				4		
184		15	dist23; measured from the top of the long joint- 32mm	lj top bore	32.7		4		